

ABSTRACT

Method and apparatus for conditioning program control flow on the presence of requested data in a cache memory. In a data processing system that includes a cache
5 memory and a system memory coupled to a processor, in various embodiments program control flow is conditionally changed based on whether the data referenced in an instruction are present in the cache memory. When an instruction that includes a data reference and an alternate control path is executed, the control flow of the program is changed in accordance with the alternate control path if the referenced data are not present
10 in the cache memory. The alternate control path is either explicitly specified or implicit in the instruction.